



VHF, UHF, and 800 MHz bands and are linked together with two microwave systems. Public safety agencies also utilize a VHF countywide simulcast tone and voice paging system. There are an estimated 3,200 mobile, portable, and control station radios operating on County VHF radio systems today.<sup>4</sup>

The County requests an extension of the NarrowBanding deadline as it is currently in the process of deploying a new, trunked VHF Project-25 radio system to replace the existing “wideband” radio systems described above. None of the County’s current VHF base station radios are narrowband-capable. The new system will include new radios and infrastructure and will be fully compliant with the Commission’s narrowbanding rule. However, the system will not be completed in time to meet the January 1, 2013 deadline and the County therefore seeks an extension until December 31, 2013. Because they will participate in operations on the new, countywide, narrowband, VHF, Project-25-based interoperable voice radio communications system, the County requests that this extension apply to all municipalities and their associated licenses as identified in the Exhibit. The County has already taken substantial steps to plan for, initiate, and complete the transition to narrowband operations. The County’s Public Safety Communications Technical Committee and a predecessor workgroup have been active since May 2002 in the pursuit of a new system to achieve narrowbanding of the County’s VHF system. The Technical Committee, under the direction of the Public Safety Communications Center Board, reviews technology issues and projects pertaining to public safety and forwards recommendations to the Center Board. The Center Board is a policy-proposing body with respect to telecommunications matters and it makes recommendations on system management

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<sup>4</sup> Public safety communications in the County are dispatched by eleven area communications centers, of which the County’s Public Safety Communications Center (PSCC) is the largest with 21 dispatch positions. There is also a back-up center for the PSCC with four radio and seven telephone positions located in a fire station in Fitchburg, WI. The majority of 9-1-1 calls in the County are also handled by the PSCC. Over 90 law enforcement, fire, and EMS agencies are dispatched by these centers.

policies for the City of Madison and County communication systems, system replacements, expansions or modifications, additional frequencies and disposition of surplus equipment. The Center Board makes recommendations to the Madison Common Council and Dane County Board of Supervisors on communication matters requiring legislation or budget approval, reviews the schedule of charges for communications services, and makes recommendations on staffing levels on communication systems.

In September 2008, the County released a Request for Proposal (RFP #108083) for a new system and in July of 2009, the County notified Motorola, Inc. and Tyco Electronics that the County intended to award a contract to Motorola upon completion of successful contract negotiations. In November 2009, the County entered into an agreement with Motorola (Agreement #10044) to provide detailed design and other services for the system. As of December 2009, milestones related to site searches and detailed design review engineering were completed, and a milestone related to frequency searches was approximately one-third completed. The project was not completed, but was supplanted by the project described in the following paragraph. The impetus for this change was mainly due to financial constraints caused by the recession.

In September and October of 2010, the Dane County Board of Supervisors and the County Executive approved a resolution (Resolution 88, 2010-2011) endorsing a revised trunked, digital, standards-based emergency radio system proposal that would include NarrowBanding of the County's VHF systems. The revised system includes improvements to coverage, capacity, and reliability, as well as expanded mutual aid interoperability and modernization of the microwave backbone of the system. The resolution also indicated a need to seek cost efficiencies, with the County investing approximately \$18 million in capital. The

Board of Supervisors indicated support for sharing of the operating and maintenance costs, with total municipal shares not exceeding \$825,000 annually. All capital and operating costs – including project costs such as consulting or potential tower site rentals that were unlikely to be provided by proposers - were expected to fit within these expectations. The Resolution required written support from communities representing 70% of the County’s population outside the City of Madison during October 2010. Communities representing 79% of the population of Dane County outside the City of Madison approved of the revised plan, and communities representing more than 95% of this population finally signed Intergovernmental Agreements in December of 2011.

Funding for the new system has been secured, and consists of (1) the County borrowing for the infrastructure; secured via capital planning and through an annual capital budget that is approved via committee meetings, public hearing, County Board and Executive action -- and all within state-established levying and other limits; and (2) a combination of County and local tax levy-funded operating budgets and federal government grants for end user radio purchase or upgrade. The County Board has approved the funding (up to \$18M) for the capital improvements. And, both the County and the communities representing about 95% of the population covered by the new radio system have approved the sharing of the operations and maintenance costs with Intergovernmental Agreements saying so. The County is prepared to “cover” the costs of the 5% of the population in communities not approving the Intergovernmental Agreements. The individual user agencies will fund the purchases of the mobile and portable radios required to operate on the new countywide system.

In January 2011 the County notified Harris Corporation and Motorola Solutions, Inc. that the County intended to award a contract for RFP #110100 to Harris Corporation upon

completion of successful contract negotiations. The County approved the contract on February 7, 2011, and payments of approximately \$5M (of the aforementioned \$18M) have thus far been made to Harris Corporation as project milestone payments.

The radio portion of the new system is a large and complex solution that consists of (1) eight simulcast trunking sites with voted receive to achieve in-light-building portable coverage, (2) an eight-frequency mutual aid and interoperability subsystem providing a mix of mobile and portable-on-street coverage, (3) an analog tactical subsystem providing light-in-building coverage in incorporated areas, (4) an outdoor warning siren system talk path, (5) redundant and geographically-separated control equipment, and (6) interoperability equipment to connect to nearby radio systems. This revised communications system infrastructure design will improve capacity, provide countywide portable in-light-building coverage, and provide connectivity between certain talk groups and channels residing on the new VHF and legacy City of Madison 800 MHz trunked systems and between certain talk groups and channels residing on the new VHF and the State's WISCOM trunked systems. The system also includes a 21-position console system in the Public Safety Communications Center with backup dispatch console positions and a very high reliability digital microwave backbone system to link key radio sites together. Because public safety radio users in the County have continued to articulate coverage as a highly important factor, the new system design will provide improved coverage when compared to current systems, particularly in light of losses expected due to narrowbanding. Simply narrowbanding the existing infrastructure would only make worse today's already inadequate coverage. The County has long worked toward an Inter SubSystem Interface (ISSI) connection with the State of Wisconsin's VHF P25 statewide trunking backbone (WISCOM) system.

The County's Final Acceptance of the new system had been set for October 2012. However, difficulties arose regarding: (1) the timely acquisition of appropriate VHF frequencies and associated Letters of Concurrence, (2) design delays due to the addition of expanded infrastructure to meet the specific needs of local municipalities, (3) implementation delays due to the unforeseen need to replace and not simply reuse existing radio towers, and (4) other project slippage such as a half-year delay in preparation and approval of the final design documents. The County now expects that the new system will be completed, and all usage of current "wideband" operations will be discontinued by December 31, 2013.

County staff is active in efforts to implement Wisconsin's Statewide Communications Interoperability Plan and are unaware of any potential negative impact to other licensees as a result of the waiver requested herein.

The following is the proposed timetable for completion of the new system and full compliance with the Commission's NarrowBanding requirements:

Completed - Customer Design Review (CDR): Design approved for physical sites, backhaul network, networking, and VHF System infrastructure.

Completed – Material : Material ordered and in shipping to factory.

5/23/12 – Staging: Assembled, tested and demonstrated in the Harris factory to include site equipment prior to shipping to Dane County.

9/27/12 – Site Development: Site physical construction completed.

2/1/13 – Installation: Radio VHF system hardware and software installed, cabled, configured and optimized.

6/21/13 - Acceptance testing: Functional and coverage testing followed by a 30-day burn-in period of the VHF system completed.

6/28/13 - Cutover: Transition of operations to the new VHF system.

7/15/13 - Final acceptance of the narrowband system infrastructure.

12/31/2013 – Transition of all users to new system, including replacement or retuning of mobiles and portables, and full decommissioning of old systems.

Grant of the County's requested waiver will be in the public interest and consistent with both Section 1.925(b)(3) of the Commission's rules and the Commission's *Public Notice*, DA 11-1189 (released July 13, 2011), which provides guidance for satisfying the requirements of Section 1.925 in the context of a waiver of the NarrowBanding deadline. Section 1.925(b)(3) allows the Commission to grant a waiver if it is shown that either: "(i) the underlying purpose of the rules(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest;" or "(ii) in view of unique or unusual factual circumstances of the instant case, application of the rules(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative."

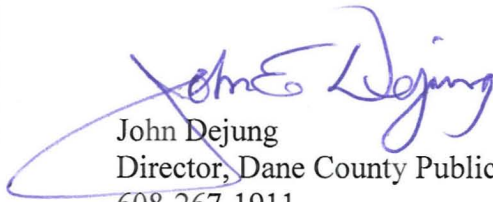
The NarrowBanding rule is intended to increase efficient use of scarce radio spectrum. The County is fully engaged in the process of deploying a spectrum-efficient, digital, trunked radio system in part to comply with the Commission's rules. Therefore, a waiver would be consistent with the "underlying purpose" of the rule and would be in the public interest, as it would promote improved public safety radio communications and spectrum efficiency. Furthermore, the County has no reasonable alternative. The County's current VHF base station radios cannot be reprogrammed to comply with the NarrowBanding requirement, so the only option available to the County is to replace those radios, which the County is in the process of doing. As noted above, the County has been diligent in its efforts to comply with the rule, and a

new system deployment is currently underway and will be completed by mid-July 2013, but full transition is not expected until the end of 2013. The brief extension requested to complete the new system will have no negative impact and will ultimately serve the public interest.

#### CONCLUSION

Therefore, for the reasons discussed above, Dane County, Wisconsin, hereby requests a waiver of the Commission's NarrowBanding deadline so the exhibited licensees may operate "wideband" under the listed callsigns (see Exhibit) until the end of calendar year 2013.

Respectfully submitted,



John Dejung  
Director, Dane County Public Safety Communications  
608-267-1911



EXHIBIT: Callsigns, Licensees, FRNs and Services included in this Waiver request:

<u>Callsign</u>	<u>Licensee</u>	<u>FRN</u>	<u>Service</u>
<a href="#"><u>KIZ510</u></a>	BELLEVILLE, VILLAGE OF	9068412	PW
<a href="#"><u>WNFR804</u></a>	BELLEVILLE, VILLAGE OF	11294006	PW
<a href="#"><u>WPMQ389</u></a>	BELLEVILLE, VILLAGE OF	9068412	PW
<a href="#"><u>KSI448</u></a>	BLACK EARTH JT FIRE DIST	4795852	PW
<a href="#"><u>KXB403</u></a>	BLACK EARTH, VILLAGE OF	2680635	PW
<a href="#"><u>WNDP967</u></a>	BLOOMING GROVE, TOWN OF	8694010	PW
<a href="#"><u>KNCT750</u></a>	BRISTOL, TOWN OF	6109318	PW
<a href="#"><u>KXT991</u></a>	BROOKLYN FIRE & EMS PROTECTION DIST	2709848	PW
<a href="#"><u>WNPQ408</u></a>	BROOKLYN, VILLAGE OF	2680585	PW
<a href="#"><u>WNPB245</u></a>	CAMBRIDGE, VILLAGE OF	2687952	PW
<a href="#"><u>WPJM622</u></a>	CAMBRIDGE, VILLAGE OF	4795571	PW
<a href="#"><u>KRD926</u></a>	CHRISTIANA, TOWN OF	2682128	PW
<a href="#"><u>KGT201</u></a>	COTTAGE GROVE, VILLAGE OF	4800397	PW
<a href="#"><u>KJJ863</u></a>	COTTAGE GROVE, VILLAGE OF	4800397	PW
<a href="#"><u>KXO710</u></a>	CROSS PLAINS BERRY FIRE DIST	2702330	PW
<a href="#"><u>WNFM632</u></a>	CROSS PLAINS, VILLAGE OF	2688117	PW
<a href="#"><u>KAZ666</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>KBD334</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>KMF914</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>KMF916</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>KNNU879</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>KSH315</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>KSI257</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>KTT968</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>WPFE867</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>WPSR724</u></a>	Dane, County of	2683530	PW
<a href="#"><u>WQGY572</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>WQJC796</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>WQJT862</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>WQLY362</u></a>	DANE, COUNTY OF	2683530	PW
<a href="#"><u>WQS465</u></a>	DANE, TOWNSHIP OF	2688950	PW
<a href="#"><u>WQEH239</u></a>	DANE-VIENNA FIRE DISTRICT	9879701	PW
<a href="#"><u>KEL399</u></a>	DEERFIELD JOINT FIRE DEPARTMENT	1682673	PW
<a href="#"><u>KS3205</u></a>	DEERFIELD, TOWN OF	9743428	PW
<a href="#"><u>WNNN607</u></a>	DEFOREST, VILLAGE OF	9953514	PW
<a href="#"><u>WQAY605</u></a>	DEFOREST, VILLAGE OF	9953514	PW
<a href="#"><u>WQLX574</u></a>	DUNKIRK, TOWN OF	19630383	PW
<a href="#"><u>KQR424</u></a>	DUNN, TOWN OF	2682060	PW
<a href="#"><u>KNCR229</u></a>	FITCHBURG, CITY OF	6875926	PW
<a href="#"><u>KXZ380</u></a>	FITCHBURG, CITY OF	2681948	PW

Callsign	Licensee	FRN	Service
<a href="#">WPKN846</a>	FITCHBURG, CITY OF	6875926	PW
<a href="#">WPWI490</a>	FITCHBURG, CITY OF	6875926	PW
<a href="#">WPYR904</a>	FITCHBURG, CITY OF	6875926	PW
<a href="#">WNYF360</a>	CITY OF FITCHBURG	6875926	PW
<a href="#">WPZY420</a>	MADISON, TOWN OF	2681658	PW
<a href="#">KFI552</a>	MAPLE BLUFF, VILLAGE OF	2690816	PW
<a href="#">WNPM725</a>	MAPLE BLUFF, VILLAGE OF	2690816	PW
<a href="#">KNGX634</a>	MARSHALL, VILLAGE OF	2690758	PW
<a href="#">KNIK273</a>	MARSHALL, VILLAGE OF	2690758	PW
<a href="#">KNBD907</a>	MAZOMANIE, CITY OF	9620584	PW
<a href="#">WNJP219</a>	MAZOMANIE, TOWN OF	2710119	PW
<a href="#">WNSG518</a>	Village of Mazomanie	9620584	PW
<a href="#">WPOF214</a>	MCFARLAND, VILLAGE OF	10582369	PW
<a href="#">KZZ648</a>	MEDINA, TOWNSHIP OF	13430673	PW
<a href="#">KCY236</a>	MIDDLETON, CITY OF	2690717	PW
<a href="#">KSS206</a>	MIDDLETON, CITY OF	2690717	PW
<a href="#">KXZ381</a>	MIDDLETON, CITY OF	2690717	PW
<a href="#">WNVD899</a>	MIDDLETON, CITY OF	4795761	PW
<a href="#">KAR965</a>	MONONA, CITY OF	13037049	PW
<a href="#">WRE627</a>	MONONA, CITY OF	2690683	PW
<a href="#">KTS732</a>	MOUNT HOREB, VILLAGE OF	5226667	PW
<a href="#">WNXI794</a>	MOUNT HOREB, VILLAGE OF	5226683	PW
<a href="#">WQAO981</a>	MOUNT HOREB, VILLAGE OF	10248607	PW
<a href="#">WQKB229</a>	MOUNT HOREB, VILLAGE OF	18163493	PW
<a href="#">KSH863</a>	OREGON AREA FIRE EMS DISTRICT	2701175	PW
<a href="#">KTX768</a>	OREGON, TOWN OF	13451489	PW
<a href="#">KSL948</a>	OREGON, VILLAGE OF	13393152	PW
<a href="#">KSU508</a>	PLEASANT SPRINGS, TOWN OF	5804182	PW
<a href="#">KNCZ249</a>	PRIMROSE, TOWN OF	2681302	PW
<a href="#">WPBH268</a>	ROXBURY, TOWN OF	7758006	PW
<a href="#">KFM463</a>	SHOREWOOD HILLS, VILLAGE OF	2690121	PW
<a href="#">KQG929</a>	SHOREWOOD HILLS, VILLAGE OF	2690121	PW
<a href="#">KMH692</a>	SPRINGDALE, TOWN OF	2681112	PW
<a href="#">WQGV428</a>	SPRINGFIELD, TOWN OF	2681096	PW
<a href="#">KSB249</a>	STOUGHTON, CITY OF	2684223	PW
<a href="#">KSD474</a>	STOUGHTON, CITY OF	2684207	IG
<a href="#">KUD473</a>	STOUGHTON, CITY OF	2684207	IG
<a href="#">WPYF771</a>	STOUGHTON, CITY OF	2684207	PW
<a href="#">WQBN793</a>	STOUGHTON, CITY OF	2684207	PW
<a href="#">KNAK364</a>	SUN PRAIRIE, CITY OF	6270219	PW
<a href="#">KSI252</a>	SUN PRAIRIE, CITY OF	6270219	PW
<a href="#">KNGK785</a>	VERONA, CITY OF	2689925	PW

Callsign	Licensee	FRN	Service
<a href="#">KTM783</a>	VERONA, CITY OF	2689925	PW
<a href="#">WNHY572</a>	VERONA, CITY OF	2704765	PW
<a href="#">KNIB555</a>	VERONA, TOWNSHIP OF	9806134	PW
<a href="#">KNFU961</a>	WAUNAKEE COMMUNITY SCHOOLS	2716199	IG
<a href="#">KNFS541</a>	WAUNAKEE COMMUNITY SCHOOLS	2716199	PW
<a href="#">KZF630</a>	WAUNAKEE PW	2689826	PW
<a href="#">KNCT732</a>	WAUNAKEE, VILLAGE OF	2689826	PW
<a href="#">KNNR483</a>	WAUNAKEE, VILLAGE OF	2689826	PW
<a href="#">KXO608</a>	WESTPORT, TOWN OF	2680833	PW
<a href="#">WPQD497</a>	WINDSOR SANITARY DIST NO 1	7533821	PW
<a href="#">WPLZ656</a>	YORK, TOWN OF	8468365	PW